

## STRAWBERRY VARIETY NAMED 'CABOT'

### BACKGROUND OF THE INVENTION

The present invention includes a new and distinct cultivar of *Fragaria ananassa* known by the varietal name 'Cabot', originally designated as "K92-17". The new variety resulted from a controlled cross in an ongoing breeding program between the strawberry plants 'K87-5' and 'K86-19'. Both parents are unpatented varieties developed by the Atlantic Food and Horticulture Research Centre in Kentville. 'Cabot' was discovered in 1992 as a seedling in a controlled breeding plot near Sheffield Mills, Nova Scotia at the Sheffield Farm, a field-station of the Atlantic Food and Horticulture Research Centre, where it was selected and propagated asexually by stolons at the Atlantic Food and Horticulture Research Centre in Kentville. Asexual propagules from this original source have been produced annually in a greenhouse at the Atlantic Food and Horticulture Research Centre, Kentville, Canada. 'Cabot' has been tested at the Atlantic Food and Horticulture Research Centre (starting in 1993) and also, research centres at Charlottetown, Prince Edward Island, Buctouche, New Brunswick, Fredericton, New Brunswick, and Pynn's Brook, Newfoundland, all of Canada. This propagation and testing has demonstrated that the combination of all traits disclosed herein which characterize the new variety are fixed and retained true to type through successive generations of asexual reproduction via stolons.

### DESCRIPTION OF THE DRAWINGS

Fig. 1 shows plant parts of the new variety, typical in size, shape, and color;

Fig. 2 shows the flowers of the new variety; and

Fig. 3 shows primary fruit of the new variety in a quart box.

### DESCRIPTION OF THE PLANT

The following detailed botanical description of the new variety is based upon measurements and observations taken of plants and fruit grown in Kentville, Nova Scotia,

Canada. Observations were taken from each variety as grown in a side-by-side field trial. Color designations, color descriptions, and other phenotypical descriptions may deviate from the stated values and description depending upon variation in the environment, seasonal, climatic and cultural conditions, however, it is believed that this description will apply to the 'Cabot' plants grown in similar conditions of soil and climate elsewhere. Color references are generally made to the R.H.S. Colour Chart of the Royal Horticultural Society of London (1966 edition). Descriptive information on the new variety is presented in Tables 1 and 2. In the tables, the flowers described are secondary flowers. The fruit described is the secondary fruit of the maiden crop, thirteen or fourteen months after planting. The harvest data in Table 3 is based on a complete harvest of the crop. Principal differences between 'Cabot' and the unpatented variety 'Bounty' are set forth.

**Classification:** The new variety is botanically identified as *Fragaria ananassa* and commercially classified as a short-day strawberry.

**Plant and Foliage:** When propagated in the nursery, 'Cabot' produces low to medium numbers of runner plants, about half the runners of 'Bounty'. Individual plants of 'Cabot' are large. The plants of 'Cabot' are of medium to high density with globose habit and strong vigor. As shown in Table 1, leaf color of 'Cabot' and 'Bounty' are Green Group 137A on the upper surface and lighter Green Group 137C on the under surface. Leaflets of 'Cabot' and 'Bounty' are about the same size and leaves of both varieties have three leaflets. 'Cabot' leaflets are cupped whereas 'Bounty' leaflets are flat. 'Bounty' leaflets have moderate numbers of obtuse to rounded serrations, as does 'Bounty'. The tip serration on 'Cabot' leaflets is smaller than on 'Bounty'. The venation of 'Cabot' leaflets is pinnate. Leaf and petiole pubescence for 'Cabot' and 'Bounty' are similar in density.

Table 1

Foliar Characteristics for 'Cabot' and 'Bounty'		
	Cultivar	
Foliar Character	'Cabot'	'Bounty'
Leaf color	Green Group	Green Group
Upper surface	137A	137A
Lower surface	137C	near 137C
Central leaflet:		
Length (mm)		
Mean	73.0	72.9
Range	63-89	65-80
Width (mm)		
Mean	69.3	68.6
Range	60-83	59-82
Length/width ratio	1.05	1.06
No. leaflets/leaf	3	3
Leaf convexity	cuffed	flat
Serrations		
Number	moderate	moderate
Size	medium	medium
Shape	obtuse to rounded	obtuse to rounded
Tip serration size	small	medium
Leaf pubescence	medium	medium
Petiole pubescence		
Density	sparse to medium	sparse
Direction	perpendicular	perpendicular

Flower and Fruit Production Characteristics: The length of bloom for 'Cabot' is about three weeks when grown in Kentville, Nova Scotia, Canada in a matted row cultural system. Flowering for 'Cabot' typically begins on June 1 and ends on June 21. 'Bounty' blooms later, typically beginning on June 5 and ending by June 26. As shown in Table 2, the flower truss of 'Cabot' is shorter than for 'Bounty' and opens lower in relation to the canopy. 'Cabot' flower trusses produce fewer flowers than does 'Bounty'. Flowers of 'Cabot' and the reference variety are white. The anther color is Yellow-Orange Group 17A. Secondary

flowers of 'Cabot' are similar to 'Bounty' in size. Secondary flowers of 'Cabot' have 5, 6, or 7 petals while 'Bounty' has 5 or 6 petals. The inner calyx of 'Cabot' has a distinctively larger diameter than the outer calyx of 'Bounty'; the inner calyx is smaller than the outer calyx. Trusses of 'Cabot' are either semi-erect or prostrate at first picking. The position of the calyx is even with the top of the berry to slightly raised for 'Cabot' and even with the top of the berry for 'Bounty'. The calyx is easily separated from the fruit for 'Bounty' but more difficult for 'Cabot'. The fruit of 'Cabot' are much larger than for 'Bounty'. The ratio of fruit length to width is 1.02 for 'Cabot' and 0.84 for 'Bounty'. 'Cabot' fruit are conic and the larger berries may have a rough appearance with bumps of the shoulders. Fruit of 'Cabot' are firmer than 'Bounty'. As shown in Table 2, the fruit color of 'Cabot' is lighter, both externally and internally, than for 'Bounty'. The achenes of 'Cabot' are Green-Yellow Group 1A but darken to Orange-Red Group 34A on the shoulders of the fruit when exposed to sunlight. The larger berries of 'Cabot' may be hollow.

TABLE 2

Flower and Fruit Characteristics for 'Cabot' and 'Bounty'		
	Cultivar	
Character	'Cabot'	'Bounty'
Flower position (relative to leaf canopy)	even	above
Flower truss length	short-medium (21.6 cm)	medium-long (24.8 cm)
Number of flowers/truss	7.3	14.8
Number of petals	6.0	5.6
Flower size (mm diameter)	29.4	30.7
Flower color	White	White
Petal length (mm)	11.6	11.8
Petal width (mm)	10.7	12.0
Petal spacing	spaced to slightly overlapping	spaced to overlapping
Calyx size		
Inner calyx (mm diam.)	28.8	26.6
Outer calyx (mm diam.)	24.0	29.9
Calyx position	even to slightly above	even
Adherence of the calyx	medium to strong	weak
Fruit Size		
Length (mm)	37.5	23.8
Width (mm)	36.6	28.2
Fruit shape		
Length/width ratio	1.02	0.84
Subjective	conic	short-conic
Seed position	even	even
Fruit firmness	medium to firm	soft
Skin toughness	medium	medium
Color (R.H.S. Colour Chart)		
Calyx	Green Group near 137C	Green Group 137D
Fruit exterior	Red Group near 46B	Red Group near 46A
Fruit interior		
Pith	Red Group 43C	Red Group near 45A
Cortex	Red Group 42B	Red Group near 45A

Disease Resistance: 'Cabot' is resistant to red stele root (*Phytophthora fragariae*) while 'Bounty' is susceptible. 'Cabot' and 'Bounty' are moderately resistant to powdery mildew (*Sphaerotheca macularis*). 'Cabot' is rated as susceptible to fruit rot (*Botrytis cinerea*) whereas 'Bounty' is moderately susceptible.

Production Characteristics: 'Cabot' has produced high yields, generally higher than 'Bounty', as shown in Table 3. In years when fruit rot has been a problem, 'Cabot' has had more unmarketable fruit than 'Bounty'. The fruit of 'Cabot' are much larger than 'Bounty'. The mean harvest date for 'Cabot' is about three days earlier than for 'Bounty'.

TABLE 3

Performance of 'Cabot' and 'Bounty' in 1996 and 1997 at Kentville, Nova Scotia. *				
	Total yield (t/ha)	% yield marketable	Size (g/fruit)	Mean harvest (day of year)
<b>1996</b>				
'Cabot'	33.8	77.6	23.4	194.3
'Bounty'	27.4	90.1	10.4	197.2
<b>1997</b>				
'Cabot'	23.7	94.3	17.0	197.5
'Bounty'	20.9	92.2	8.7	200.5

\* Plants were grown in matted rows and four blocks of 3m long rows were harvested each year.